I CLAIM,

1. A flammable vapour detector system comprising a thermocouple mounted in a combustion chamber of a hot water heater, combustion air intake means to supply combustion air to said combustion chamber, a gas burner in said chamber, a gas supply line secured to said gas burner, an external gas valve in said supply line, a gas valve control circuit to control the ON/OFF state of said external gas valve, said gas valve control circuit being connected to said thermocouple, said thermocouple being exposed to said combustion chamber to sense the temperature therein and being set to cause the control circuit to shut off said external gas valve when said temperature in said combustion chamber reaches a predetermined set temperature value upon burning flammable vapours as they propagate in said combustion chamber through said combustion air intake means.

2. A flammable vapour detector system as claimed in claim 1 wherein said predetermined value is higher than the temperature generated by said burner from the combustible gas and air mixture without flammable vapours mixed therewith.

3. A flammable vapour detector system as claimed in claim 2 wherein said control circuit comprises a normally closed (N.C.) switch through which is supplied a current to maintain said gas valve open to supply gas to said burner.

4. A flammable vapour detector system as claimed in claim 3 wherein said thermocouple opens said N.C. switch upon sensing said predetermined set temperature value to cut off said current to cause said gas valve to close and shut off gas supply to said burner to extinguish same.

5. A flammable vapour detector system as claimed in claim 2 wherein said combustion air intake means is a snorkel having an elevated air intake port to admit ambient combustion air to said combustion chamber.